

What is claimed is:

1. An apparatus for searching an access point of a mobile terminal, the apparatus comprising:

5 wireless LAN service determination means for determining whether or not there is an access point of wireless LAN providing wireless data service based on broadcasting information transmitted within a service area of a base station; and

10 wireless LAN service means for searching a beacon signal transmitted from the access point of the wireless LAN according to the determination result of the wireless LAN service determination means and receiving wireless data service from the access point of the wireless LAN based on
15 the beacon signal.

2. The apparatus as recited in claim 1, wherein the mobile station is a dual mode mobile station having a wireless LAN module and a mobile communication module.

20

3. The apparatus as recited in claim 1, wherein the base station is installed by setting predetermined service area based on a location in which the access point.

25

4. A method for searching an access point, the method comprising the steps of:

a) obtaining broadcasting information, transmitted within a service area of a base station, by using a mobile communication module of a mobile station;

30

b) determining whether or not there is the wireless LAN access point providing services based on the obtained broadcasting information; and

35

c) receiving wireless data service from the wireless LAN access point by using a wireless LAN module which searches periodically transmitted beacon signal of the wireless LAN access point in case there is the wireless LAN access point is existed.

5. The method as recited in claim 4, wherein the broadcast information includes information indicating presence of wireless LAN access point and is periodically broadcasted to all mobile stations in a service area of the
5 base station.

6. A computer readable recoding medium having executable instructions for implementing a method for searching an access point, the method comprising the steps
10 of:

- a) obtaining broadcasting information, provided within a service area of a base station, by a mobile communication module of a mobile station;
- b) determining whether or not there is the wireless
15 LAN access point providing services based on the obtained broadcasting information; and
- c) receiving wireless data service from the wireless LAN access point by using a wireless LAN module which searches periodically transmitted beacon signal of the
20 wireless LAN access point in case there is the wireless LAN access point is existed.